GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:2945
ANSWERED ON:30.07.2014
DNA BARCODING TECHNOLOGY
Yellaiah Shri Nandi

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether DNA barcoding technology has been developed/being developed by scientists from the Centre for Cellular & Molecular Biology (CCMB);

(b) if so, the details of progress made in this direction;

(c) whether CCMB is self reliant in this aspect with advanced technology;

(d) if not, whether any collaboration is contemplated with foreign laboratories in this regard; and

(e) if so, the details thereof?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) OF THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE (INDEPENDENT CHARGE) OF THE MINISTRY OF EARTH SCIENCES (DR. JITENDRA SINGH)

(a) Yes, Madam. CSIR-Centre for Cellular & Molecular Biology (CSIR-CCMB) had developed DNA barcoding technology.

(b) In March 2001, Verma and Singh invented the 'Universal primer technology' to address the question pertaining to establishment of the identity of any unknown biological sample and assign it to its known species source (Verma and Singh, US and PCT Patent application No: PCT/IN01/00055, First Filling Date: 28/03/2001; Priority date: 28/03/2001). This technology worked across large range of animal species in a universal manner and was able to detect any of the endangered species of India (and that of entire world indeed), from birds to fishes to mammals to provide 'beyond a reasonable doubt' evidence on species identity in the court of law. Patent related to this invention was filed in several countries and the research papers were published in various journals. This technique of CSIR-CCMB revalorized the arena of Wildlife Forensics. It is currently being used routinely in LaCONES of CSIR-CCMB to provide the wildlife forensics services to the Nation in the cases pertaining to wildlife crime.

(c) Yes, Madam.

(d)&(e) Does not arise.